UNITED STATES PATENT AND TRADEMARK OFFICE

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FITZPATRICK CELLA HARPER & SCINTO
1290 Avenue of the Americas
NEW YORK, NY 10104-3800

EXAMINER
ROBERTS, JESSICA M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/27/2008*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-23* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *12-23* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *22 April 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-11 have been cancelled by Applicants amendment

Acknowledgement of Amendment

Applicant's Amendment filed on 05/06/2009 overcomes the following

objection(s)/ rejection(s):

The rejection of claims 12-23 under 35 U.S.C. 101 has been withdrawn in view of

Applicants amendment.

Response to Arguments

1.   Applicant's arguments filed 10/27/2008 have been fully considered but they are

not persuasive.

2.   As to Applicants' argument regarding Fig. 17 is not necessarily "Prior Art". This

objection is traversed, since a view of explaining a conventional technique does not

necessarily mean that the view itself is conventional.

3.   The Examiner respectfully disagrees. The Applicant has disclosed fig. 17

4.   The Examiner respectfully disagrees. The elements of Fig. 17 that are explained

in [0004] are considered conventional, as the Applicant has defined Fig. 17 is a view for

explaining the conventional moving image dividing technique. Therefore, since the

Applicant has defined Fig. 17 as a view for explaining the conventional moving image

technique, thus the Examiner maintains that Fig. 17 constitutes as Prior Art. Further,

Examiner maintains that Fig. 17 should be designated by a legend such as -- Prior Art--

because only that which is old illustrated. Further fig. 17 and paragraphs [0002]-[0005] are explained within the Applicants Background, therefore, being considered as Prior Art. The rejection of the instant application with Applicants Background, paragraphs [0002]-[0005] and fig. 17 are considered as Prior Art.

As to Applicants argument that the applied art is not seen to disclose or suggest the feature of claims 12 and 21, and in particular is not seen to disclose or suggest at least the feature of hierarchizing a plurality of division information generate for each item group of a plurality of items.

The Examiner respectfully disagrees. AAPA teaches FIG. 17 is a view for explaining the conventional moving image dividing technique. (a) of FIG. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective items. (b) of FIG. 17 shows the image dividing result using these Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of FIG. 17, since division positions based on a plurality of different items are present together, the moving image is segmented into many intervals [0004]. Since AAPA discloses to divide the image changing points into layers (gain, white balance, zoom and pan), and create a division result, it is clear to the examiner that AAPA teaches to add the changing point layers to create the division result which reads upon the claimed limitation).

5.   As to Applicants argument regarding Matsushita '488 is not seen to organize the shots above or below each other, much less into any sort of hierarchical levels.

The Examine respectfully disagrees. The Examiner respectively disagrees.
Matushita teaches where it performs dividing the continuous frame into a shot based on
camera work. Camera works are zoom operation and pan-operation, and show the
example which divided into five shots the frame which follows drawing 4 by zoom
operation and pan-operation.

Matushita (modified by AAPA) teaches where Fig. 17 is a view for explaining the
conventional moving image dividing technique. (a) of Fig. 17 shows the changing points
(Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the
states of the image sensing device with respect to a single moving image for respective
items. (b) of Fig. 17 shows the image dividing result using these Gain, White Balance,
subject distance, Zoom and Pan items. As shown in (b) of Fig. 17, since division
positions based on a plurality of different items are present together, the moving image
is segmented into many intervals [0004]. Since AAPA discloses to divide the image
changing points into layers, (gain, white balance, zoom and pan), and creates a division
result, it is clear to the examiner that AAPA teaches to add the changing point layers to
create the division which reads upon the claimed limitation of adding division positions
based on division information of an upper layer to division positions of division
information of a lower layer.

6.   As to Applicants argument to traverse the Office Action's assertion that
disclosure of hierarchizing a plurality of division information in th4e case that a plurality
of division information is generated in correspondence with a plurality of item groups is
well-known in the art.

The Examiner respectfully disagrees. AAPA teaches FIG. 17 is a view for explaining the conventional moving image dividing technique. (a) of FIG. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective items. (b) of FIG. 17 shows the image dividing result using these Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of FIG. 17, since division positions based on a plurality of different items are present together, the moving image is segmented into many intervals [0004]. Since AAPA discloses to divide the image changing points into layers (gain, white balance, zoom and pan), and create a division result, it is clear to the examiner that AAPA teaches to add the changing point layers to create the division result which reads upon the claimed limitation).

As to Applicants argument that Matsushita '488 cannot disclose or suggest generating division information corresponding to the item group on the basis of the additional data of the image which belong to the item group, or adding division positions based on division information of an upper layer to division positions of division information of a lower layer.

Drawings

1.   Figure 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

4.   Claims 12-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over of Matsushita et al., JP 8163488 and in view of Applicants Admitted

Prior Art (AAPA) and further in view of well known prior art (Official Notice).

Regarding claim 12, AAPA teaches A moving image processing method for

dividing a moving image <u>sensed between a beginning of recording and an ending of</u>

<u>recording</u> on the basis of a plurality of items of additional data which indicate states

upon sensing the moving image, wherein the additional data is added t the moving

image and is able to be read out for each item from the moving image comprising: a generation step of defining an item group formed of one or a plurality of items selected from the plurality of items (Matsushita teaches this invention aims at offering the equipment which generates the digest which is easy to grasp the contents of a dynamic image in view of this point [0004]. Therefore, it is clear to the examiner that Matsushita teaches to generate a digest of images, which reads upon the claimed limitation) and generating division information corresponding to the item group on the basis of the additional data of the items which belong to the item group (Matsushita teaches to perform the dividing the continues frame into a shot based on camera work. The camera works are zoom operation and pan operation [0020]); a hierarchization step of hierachizing a plurality of division information generated for each item group, and of adding division positions based on division information of an upper layer to division positions of division information of a lower layer, and a holding step of holding the division information obtained in the hierarchization step in correspondence with the moving image data (Matsushita teaches with which the information showing a hierarchical structure, i.e., a scene, a cut, and each head frame and termination frame of the shot are memorized is memorized to the hierarchical structure [0023]. Further taught is that as mentioned above, by generating the hierarchical structure of video and memorizing to the storage with video, when photoing video with the equipment equipped with a photographing functions, such as video camera, in this example arbitrary [based on hierarchical structure] after photography –it becomes possible to generate the digits [0025]. Since Matsushita teaches to generate the hierarchical

structure of video to the storage with video, it is clear to the examiner that Matsushita

discloses to hold the division information obtained from the hierarchical structure, which

reads upon the claimed limitation). Matsushita does not explicitly teach hierarchization

step of adding division positions based on integrated division information of an upper

layer to division positions of integrated division information of a lower layer in

accordance with a hierarchical order of a plurality of pieces of integrated division

information, which are generated in the generation step in correspondence with a

plurality of different item groups.

However, AAPA teaches hierarchization step of adding division positions based

on integrated division information of an upper layer to division positions of integrated

division information of a lower layer in accordance with a hierarchical order of a plurality

of pieces of integrated division information, which are generated in the generation step

in correspondence with a plurality of different item groups (AAPA teaches FIG. 17 is a

view for explaining the conventional moving image dividing technique. (a) of FIG. 17

shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the

operation intervals and the states of the image sensing device with respect to a single

moving image for respective items. (b) of FIG. 17 shows the image dividing result using

these Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of

FIG. 17, since division positions based on a plurality of different items are present

together, the moving image is segmented into many intervals [0004]. Since AAPA

discloses to divide the image changing points into layers (gain, white balance, zoom

and pan), and create a division result, it is clear to the examiner that AAPA teaches to

add the changing point layers to create the division result which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of AAPA with Matsushita for providing more efficient image processing.

Matsushita (modified by AAPA) as whole does not explicitly disclose wherein the plurality of division information is hierarchized and the division positions are added in a case that the plurality of division information is generated in the generation step in correspondence with a plurality of an item groups.

However, Official Notice is taken that both the concept and advantage of providing the limitations as claimed are notoriously well known and expected in the art, and therefore, would have been obvious to incorporate in Matsushita (modified by AAPA) for providing improved editing.

Regarding claim 13, Matsushita (modified by AAPA and well known prior art) as a whole teaches everything as claimed above, see **claim 12.** Matsushita is silent in regards to The method according to claim 12, further comprising a setting step of setting the hierarchical order of the plurality of pieces of division information on the basis of division counts of the division information.

However, AAPA discloses For example, FIG. 17 is a view for explaining the conventional moving image dividing technique. (a) of FIG. 17 shows the changing points (Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals and the states of the image sensing device with respect to a single moving image for respective

items. (b) of FIG. 17 shows the image dividing result using these Gain, White Balance,

subject distance, Zoom, and Pan items. As shown in (b) of FIG. 17, since division

positions based on a plurality of different items are present together, the moving image

is segmented into many intervals [0004]. Therefore, it is clear the examiner that the

reference more than fairly suggest or teaches to set a hierarchy based on the division

counts. Since AAPA discloses the division positions are based on a plurality of different

items that are present together, it would have been obvious modification for one of

ordinary skill in the art at the time of the invention to count the division information for

providing enhanced image processing, which reads upon the claimed limitation.

Therefore, it would have been obvious for one of ordinary skill in the art at the

time of the invention to incorporate the teachings of AAPA with Matsushita (modified by

well known prior art) for providing more efficient image processing.

Regarding claim 14, see rejection and analysis made in claim 13.

Regarding claim 15, Matsushita (modified by AAPA) teaches everything as

claimed above, see **claim 12.**   In addition, Matsushita teaches the method according to

claim 12, wherein the hierarchical order of the plurality of pieces of division information

is set according to a hierarchical order which is set in advance for respective item

groups (Matsushita teaches the block diagram of this example is shown in drawing 1.

This example reads into the hierarchy selection means 5 the hierarchical structure

information memorized by the hierarchic-structure storage 2, and based on the surface

roughness input from the digest surface roughness input means 7, the hierarchy

selection means 5 chooses the information on a specific hierarchy from the read

hierarchical structure information, and outputs it to the extraction section determination

means 6, [0010]. Therefore, it is clear to the examiner that Matsushita discloses to

select a specific hierarchy, which would necessitate setting the hierarchy in advance,

which reads upon the claimed limitation).

Regarding claim 16, Matsushita (modified by AAPA and well know prior art) as

a whole teaches everything as claimed above, see **claim 12.** In addition Matsushita

teaches the method according to claim 12, further comprising a designation step of

designating the hierarchical order of the plurality of pieces of division information

(Matsushita teaches the hierarchic structure is generated and the memory address on

the dynamic-image storage 1 with the information showing the hierarchic structure, i.e.,

scene and a hierarchy selection means to choose the hierarchy of the section dynamic

image extracted according to the inputted surface roughness from said hierarchic-

structure storage, [0006] and [0010]).

Regarding claim 17, Matsushita (modified by AAPA and well known prior art) as

a whole teaches everything as claimed above, see **claim 12.** In addition Matsushita

teaches The method according to claim 12, further comprising: a representative image

generation step of generating and holding representative images which represent

respective intervals of a moving image that are specified by division information of

respective layers obtained in the hierarchization step (Matsushita teaches the hierarchic

structure is generated and the memory address on the dynamic-image storage 1 with

which the information showing the hierarchic structure, i.e., a scene, a cut, and each

head frame and termination frame of the shot are memorized is memorized to the

hierarchic-structure storage 2. Moreover, to memorize the memory address on the

dynamic-image storage 1 of the frame which represents a scene, a cut, and a shot

further as hierarchical structure information [0023]) ; and a display step of displaying,

when one interval of one layer is designated, representative images of intervals

included in the designated interval in a layer lower than the one layer (Matsushita

discloses where a dynamic image can be expressed by the hierarchic structure called a

frame, a shot, a cut, and a scene in the way. A least significant layer is a frame and a

frame is the picture of one sheet photoed at the video rate [0011]. Further, the case

where the information on a cut hierarchy was chosen from the hierarchy selection

means 5, and it is inputted about operation of the extraction section determination

means 6 is made into an example, and it explains. With the extraction section

determination means 6, the section which extracts the dynamic image of several frames

which continued from each cut based on the information on a cut hierarchy is

determined. The method of some determination methods of the extraction section being

considered and extracting a predetermined frame number from the head of a cut -- or

there is a method of extracting the middle predetermined frame number of a cut.

Moreover, when it has the frame information which represents a cut as information on

the hierarchic structure, you may determine the extraction section that a representative

frame is included based on a representative frame.

The read-out means 3 and the display means 4 read the picture of the extraction

section determined with the extraction section determination means 6 from the dynamic-

image storage 1, and display it [0014]. Therefore, it is clear to the examiner that

Matsushita discloses to display an image based on the selected hierarchy. Further,

since Matsushita discloses the information is in a hierarchy, then Matsushita is more

than fully capable of displaying images that have a lower hierarchical order than what is

selected, which reads upon the claimed limitation).

Regarding claim19, Matsushita (modified by AAPA and well know prior art) as a

whole teaches everything as claimed above, see **claim 12.** In addition, Matsushita

teaches The method according to claim 12, further comprising a storage step of storing

the integrated division information obtained in the hierarchization step in a storage

medium in correspondence with the moving image data (Matsushita teaches a

generation of the video digest of a natural display is enabled by storing the generated

digest picture in a video storing medium [0042]).

Regarding claim 20, Matsushita (modified by AAPA and well know prior art) as

a whole teaches everything as claimed above, see **claim 12.** Matsushita is silent in

regards to the method according to claim 12, wherein the item group includes one of an

environment upon sensing an image, a sensed subject, a subject size upon sensing an

image, and an effect applied to a moving image (AAPA teaches a conventional moving

image dividing technique. (a) of Fig. 17 shows the changing points (Gain, White

Balance, and subject distance, zoom, pan) of the operation intervals and the states of

the image sensing device with respect to a single moving image for respective items

[`0004] and fig. 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to incorporate the teachings of AAPA with Matsushita for providing
more efficient image signal processing.

Regarding claim 21, see rejection and analysis made in claim 12, except this is
a claim to an apparatus with the same limitations as claim 12.

Regarding claims 22 although Matsushita (modified by AAPA and well known
prior art) is silent in regards to the use of a computer readable recording medium
recording a control program which makes a computer execute or processor based
method, it would obvious to one of ordinary skill that when performing digital signal
processing the use of a digital signal processor is used. Further a digital signal
processor and computer readable recording medium recording a control program which
makes a computer execute, are functional equivalents of one another and are used
interchangeably. Therefore, it would have been obvious to incorporate a computer
readable recording medium recording a control program which makes a computer
execute for use when performing digital signal processing.

Regarding claim 23, see the rejection and analysis made for claim 22.

5.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over
Matsushita et al., JP 8163488 (herein referenced as Matsushita) and in view of
Applicants Admitted Prior Art (AAPA) and further in view of Matsushita et al., JP 05-
147337 (herein referenced as Matsushita'337), and well known prior art (Official Notice).

Regarding claim 18, Matsushita (modified by AAPA and well know prior art) as
a whole teaches everything as claimed above, **see claim 17.** Matsushita is silent in
regards to The method according to claim 17, further comprising an execution step of

executing a predetermined process for an interval of a moving image, which

corresponds to a representative image selected from the representative images

displayed in the display step.

However, an execution step of executing a predetermined process for an interval

of a moving image, which corresponds to a representative image selected from the

representative images displayed in the display step (By equipping a video recording

medium with the above representative picture image extraction image information, it

becomes possible to extract the representative picture image in video so that

subsequent samples may explain [0011]. Further taught is The information for extracting

a representative picture image beforehand is recorded on the video recording medium

with the video signal, and the above example explained the case where read the

extraction information on a representative picture image from a video recording

medium, and a representative picture image was extracted. However, even when a part

or all of the information for extracting a representative picture image does not exist in a

video recording medium, by processing the video signal recorded on the video

recording medium, the information for extracting a representative picture image can be

acquired, and a representative picture image can be extracted based on the acquired

information [0014].

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to incorporate the teachings of Matsushita'337 with Matsushita

(modified by AAPA and well know prior art) for providing a device and video recording

medium which extract automatically the representative picture image which fully

expresses the contents in video in view of this point [0004].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JESSICA ROBERTS whose telephone number is

(571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-

Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax

phone number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Jessica Roberts/
Examiner, Art Unit 2621